

# COLORADO RIVER ACTION PLAN: MAINSTEM

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		ACTIVITY	WHO	STATUS	FY 03 10/02-9/03	FY 04 10/03-9/04	FY 05 10/04-9/05	FY 06 10/05-9/06	FY 07 10/06-9/07	FY 08 10/07-9/08	OUT- YEARS
I.		<b>PROVIDE AND PROTECT INSTREAM FLOWS (HABITAT MANAGEMENT)</b>									
I.A.		<u>Colorado River above Gunnison River</u>									
>*	I.A.1.	Develop, issue and implement PBO.	FWS	Issued 12/20/99							
	I.A.2.	Initially identify year-round flows needed for recovery.									
	I.A.2.a.	Rifle to Roller Dam.	FWS-FR	Complete							
	I.A.2.b.	Roller Dam to 15-Mile Reach.	FWS-FR	Complete							
	I.A.2.c.	15-Mile Reach.	FWS-FR	Complete							
	I.A.3.	Provide a depletion accounting report as outlined in the 15-Mile Reach PBO.									
	I.A.3.a.	Collect data.	CWCB/FWS- ES/BR		X	X	X	X			X
	I.A.3.b.	Develop consumptive use and losses report with CRDSS model to verify level of depletions.	CWCB					12/05			
	I.A.3.c.	Calculate new depletions every 5 years (2011, 2016, etc).	CWCB								X
	I.A.4.	Evaluate need for instream flow water rights.									
	I.A.4.a.	Rifle to Roller Dam (Dependent on initial flow recommendations).									
	I.A.4.a.(1)	Assess legal and physical availability of water.	CWCB	Complete							
	I.A.4.a.(2)	Assess compact considerations.	CWCB	Complete							
	I.A.4.a.(3)	Five-year periodic review of progress under the PBO to determine if instream flow filings are necessary.	CWCB/FWS			X					X
	I.A.4.a.(3)a	If necessary, evaluate how identified flows will be legally protected.	CWCB			X					X
	I.A.4.b.	Roller Dam to 15-Mile Reach (Dependent on initial flow recommendations).									
	I.A.4.b.(1)	Assess legal and physical availability of water.	CWCB	Complete							
	I.A.4.b.(2)	Assess compact considerations.	CWCB	Complete							
	I.A.4.b.(3)	Five-year periodic review of progress under the PBO to determine if instream flow filings are necessary.	CWCB/FWS			X					X
	I.A.4.b.(4)	If necessary, evaluate how identified flows will be legally protected.	CWCB			X					X
	I.A.4.c.	15-Mile Reach.									
	I.A.4.c.(1)	Instream flow water right secured - 581 cfs (July - September).		Complete							
	I.A.4.c.(2)	Irrigation season return flows legally protected - 300 cfs.		Complete							
	I.A.5.	Provide and legally protect instream flows pursuant to Colorado River PBO.									
>*	I.A.5.a.	Pursuant to Ruedi Biological Opinion, deliver 5,000af annually & an additional 5,000af 4 out of 5 years (ongoing and protect by short-term agreement).	BR/CWCB	Ongoing	X	X	X	X	X	X	X
>*	I.A.5.b.	Execute long-term lease for 10,825 af from Ruedi Reservoir.	BR/FWS/ CWCB	In progress (late)	X						
>*	I.A.5.b.(1)	Provide water annually pursuant to long-term lease.	BR/CWCB		X	X	X	X	X	X	X
	I.A.5.c.	Execute 10-year agreement for delivery of 5,412.5 af by West Slope water users.	CRWCD/FWS	Complete							
>*	I.A.5.c.(1)	Provide and protect water deliveries by West Slope water users.	CRWCD/ CWCB	Ongoing	X	X	X	X	X	X	X
	I.A.5.d.	Execute 10-year agreement for delivery of 5,412.5 af by East Slope water users.	DWD/FWS	Complete							
>*	I.A.5.d.(1)	Provide and protect water deliveries by East Slope water users.	DWD/CWCB	Ongoing	X	X	X	X	X	X	X
	I.A.5.e.	Permanent delivery of 10,825 af of water in late summer/early fall to meet base flow needs.									
	I.A.5.e.(1)	Identify options.	CRWCD/ NWCD/ Denver Water		X						
	I.A.5.e.(2)	Select preferred alternative for delivery.	CRWCD/ NWCD/ Denver Water				7/05				
>*	I.A.5.e.(3)	Deliver and legally protect flows.	CRWCD/ NWCD/ Denver Water	Begin 7/08						X	X

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	I.B.4.c.(3)(a) Determine if change in water right and/or contract is needed.	BR	Pending							
	I.B.4.c.(3)(b) Enter into contract if needed.	BR	Pending							
>*	I.B.4.c.(3)(c) Deliver flows.	BR	Pending							
	I.C. Colorado River from Colorado-Utah State line to Green River. (Flow recommendations needed.)									
	I.C.1. Initially identify year-round flows needed for recovery.	FWS-FR		X						
	I.C.2. State acceptance of initial flow recommendations.									
	I.C.2.a. Review scientific basis.	UT	Pending							
	I.C.2.b. Assess legal and physical availability of water.	UT	Pending							
	I.C.3. Legally protect identified flows.									
	I.C.3.a. Hold public meeting to establish future appropriation policy.	UT	Pending							
	I.C.3.b. Adopt and implement new policy (new appropriations subject to flow criteria).	UT	Pending							
>*	I.C.3.c. Prepare and execute contracts with water users as required to subordinate diversions associated with approved and/or perfected rights.	UT	Pending							
	I.D. Colorado River below Green River									
	I.D.1. Initially identify year-round flows needed for recovery.	FWS		X						
	I.D.2. State acceptance of initial flow recommendations (dependent on development of initial flow recommendations).									
	I.D.2.a. Review scientific basis.	UT	Pending							
	I.D.2.b. Assess legal and physical availability of water.	UT	Pending							
	I.D.3. Legally protect identified flows (dependent on development of initial flow recommendations).									
	I.D.3.a. Hold public meeting to establish future appropriation policy.	UT	Pending							
	I.D.3.b. Adopt and implement new policy (new appropriations subject to flow criteria).	UT	Pending							
>*	I.D.3.c. Prepare and execute contracts with water users as required to subordinate diversions associated with approved and/or perfected rights.	UT	Pending							
	I.E. Evaluate and revise as needed flow regimes to benefit endangered fish populations.	FWS/Program	Ongoing	X	X	X	X	X	X	X
	II. RESTORE HABITAT (HABITAT DEVELOPMENT AND MAINTENANCE)									
	II.A. Restore and manage flooded bottomland habitat.									
	II.A.1. 29-5/8 Road Gravel Pit									
	II.A.1.a. Develop and approve management plans.	FWS-FR	Complete							
	II.A.1.b. Site design/complete environmental compliance.	BR	Complete							
>*	II.A.1.c. Construct.	BR	Complete							
	II.A.1.d. Operate and maintain.	BR	Ongoing	X						
	II.A.1.e. Monitor and evaluate success; modify as needed.	FWS-FR	Modification on hold	X						
	II.A.2. Adobe Creek.									
	II.A.2.a. Develop and approve management plans.	FWS-FR	Complete							
	II.A.2.b. Site design/complete environmental compliance.	BR	Complete							
>*	II.A.2.c. Construct.	BR	Complete							
	II.A.2.d. Operate and maintain.	BR	Ongoing	X						
	II.A.2.e. Monitor and evaluate success; modify as needed.	FWS-FR	Complete							
	II.A.3. Walter Walker.									
	II.A.3.a. Develop and approve management plans.	FWS-FR	Complete							
	II.A.3.b. Site design/complete environmental compliance.	BR	Complete							
>*	II.A.3.c. Construct.	BR	Complete							
	II.A.3.d. Operate and maintain.	BR/FWS	Ongoing	X						
	II.A.3.e. Monitor and evaluate success; modify as needed.	FWS-FR	Late report	X						
	II.A.4. Develop and implement levee removal strategy at high-priority sites.									
	II.A.4.a. Preconstruction (contaminants screening, floodability assessments, environmental compliance, design & engineering.	BR/FWS		X						
>*	II.A.4.b. Construction (levee breaching) (NOEL: Subject to review and approval for depression wetlands.)	BR		X						
	II.A.4.c. Operate and maintain.	BR/FWS		X						
	II.A.4.d. Evaluation	FWS		X						

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	II.A.5.	Acquire interest in high-priority flooded bottomland habitats.									
	II.A.5.a.	Identify and evaluate sites.	FWS		X						
	II.A.5.b.	Pre-acquisition planning and identification of acquisition options.	PD		X						
	II.A.5.c.	Conduct appraisal/NEPA compliance.	PD		X						
>*	II.A.5.d.	Negotiate and acquire.	PD		X						
	II.A.5.e.	Evaluate effectiveness of land acquisition activities and provide recommendations	PD		X						
	II.B.	Restore native fish passage at instream barriers.									
	II.B.1.	Restore passage at Grand Valley Irrigation Co. Diversion Dam (Palisade)									
	II.B.1.a.	Evaluate and implement viable options to restore fish passage.	BR/FWS	Complete							
	II.B.1.a.(1)	Obtain landowner consent/agreement.	BR	Complete							
	II.B.1.a.(2)	Site design/environmental compliance.	BR	Complete							
>*	II.B.1.a.(3)	Construct.	BR	Complete							
>*	II.B.1.a.(4)	Operate and maintain.	FWS-FR/BR	Ongoing	X	X	X	X	X	X	X
	II.B.1.a.(5)	Monitor and evaluate success.	FWS-FR/BR	Complete							
	II.B.1.b.	Screen GVIC diversion to prevent endangered fish entrainment, if warranted.									
	II.B.1.b.(1)	Design.	BR	Complete							
>*	II.B.1.b.(2)	Construct.	BR	Complete							
>*	II.B.1.b.(3)	Operate and maintain.	FWS-FR/BR	Ongoing	X	X	X	X	X	X	X
	II.B.2.	Restore fish passage at Price Stubb.									
	II.B.2.a.	Evaluate and implement viable options.									
	II.B.2.a.(1)	Obtain landowner consent/agreement.	BR		X	X					
	II.B.2.a.(2)	Site design/environmental compliance.	BR		X						
>*	II.B.2.a.(3)	Construct.	BR			X	10/05				
>*	II.B.2.a.(4)	Operate and maintain.	TBD				X	X	X	X	X
	II.B.2.a.(5)	Monitor and evaluate success (if dam removed, no biological evaluation will be needed).	FWS-FR/BR				X				
	II.B.3.	Restore fish passage at Government Highline (Roller Dam).									
	II.B.3.a.	Evaluate and implement viable options.									
	II.B.3.a.(1)	Site design/environmental compliance.	BR		X						
>*	II.B.3.a.(2)	Construct.	BR			X	4/05				
>*	II.B.3.a.(3)	Operate and maintain.	BR		X	X	X	X	X	X	X
	II.B.3.a.(4)	Monitor and evaluate success.	FWS-FR/BR				X	X			
	II.B.3.b.	Screen Government Highline diversion to prevent endangered fish entrainment .									
	II.B.3.b.(1)	Design.	BR	Complete							
>*	II.B.3.b.(2)	Construct.	BR		X	3/04					
	II.B.3.b.(3)	Evaluate screening.	FWS-FR/BR			X	X				
	II.C.	Support actions to reduce or eliminate contaminant impacts. [NOTE: Contaminants remediation (in all reaches) will be conducted independently of and funded outside of the Recovery Program.]	FWS-ES		X	X	X	X	X	X	X
	II.C.1.	Support actions to reduce or eliminate contaminant impacts of selenium in the Grand Valley.	FWS-ES		X	X	X	X	X	X	X
	II.C.2.	Support remediation of groundwater contamination at the Atlas Mill tailings site.	FWS-ES		X	X	X	X	X	X	X
	II.C.3.	Identify measures to minimize risk of hazardous materials spills in Black Rocks and Westwater Canyon from transport along the adjacent railway to protect humpback chub populations.	FWS-ES		X	X	X	X	X	X	X
	III.	<b>REDUCE NEGATIVE IMPACTS OF NONNATIVE FISHES AND SPORTFISH MANAGEMENT ACTIVITIES (NONNATIVE AND SPORTFISH MANAGEMENT)</b>									
	III.A.	Develop and implement control programs in reaches of the Colorado River occupied by endangered fishes. Each control activity will be evaluated for effectiveness and then continued as needed.									
	III.A.1.	Determine relationship between Aspinall test flows and nonnative fish abundance.	UDWR/ FWS-FR	Complete							
>*	III.A.2.	Reclaim ponds in critical habitat.	CDOW	Complete							

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III.A.2.a.	Evaluate and make recommendations.	CDOW	Complete							
III.A.3.	Nonnative cyprinids and centrarchids in nursery habitats.									
>* III.A.3.a.	Remove small nonnative cyprinids from backwaters and other low velocity habitats.	CDOW/UDWR	Complete							
>* III.A.3.b.	Remove nonnative centrarchids from backwaters and other low velocity habitats.	FWS	Late	X						
III.A.4.	Preclude escapement from ponds in critical habitat as needed and feasible.									
III.A.4.a.	Evaluate sources of nonnative fishes and make recommendations.	CDOW/FWS		X	X	X				
>* III.A.5.	Develop and implement program to identify required level of channel catfish control.	FWS		X	X	X	X			
III.B.	Reduce negative impacts to endangered fishes from sportfish management activities.									
>* III.B.1.	Evaluate control options and implement measures to control nonnative fish escapement from Highline Reservoir.	CDOW/ CRWCD	Complete							
III.B.1.a.	Operate and maintain Highline Reservoir net.	CDOPR	Ongoing	X	X	X	X	X	X	X
III.B.1.b.	Evaluate Highline Reservoir net.	CDOW	Complete							
III.B.2.	Remove bag and possession limits on warmwater nonnative sportfishes within critical habitat in Colorado.	CDOW	Complete							
III.B.4.	Develop basinwide aquatic management plan to reduce nonnative fish impacts while providing sportfishing opportunities.	CDOW		X						
>* III.B.4.a.	Implement CDOW's Colorado River Fisheries Management Plan.	CDOW	Ongoing	X	X	X	X	X	X	X
IV.	<b>MANAGE GENETIC INTEGRITY AND AUGMENT OR RESTORE POPULATIONS (STOCKING ENDANGERED FISHES)</b>									
IV.A.	Augment or restore populations as needed, and as guided by the Genetics Management Plan.									
IV.A.1.	Razorback sucker.									
IV.A.1.a.	Develop experimental augmentation plan and seek Program acceptance.	FWS-FR	Complete							
IV.A.1.b.	Implement experimental augmentation plan.									
> IV.A.1.b.(1)	Stock fish.	FWS-FR	Complete							
IV.A.1.b.(2)	Monitor and evaluate results; make recommendations regarding further augmentation.	FWS-FR	Complete							
IV.A.2.	Monitor the fish community in the upper Colorado River (above Palisade) and develop management action plan, including recommendations for Colorado pikeminnow and razorback sucker augmentation.	CDOW	Complete							
IV.A.3.	Develop State stocking plan for razorbacks in the Colorado River in Colorado.	CDOW/PD	Complete							
IV.A.3.a.	Program acceptance.	CDOW/PD	Complete							
> IV.A.3.b.	Implement razorback sucker State stocking plan.	CDOW/PD	Ongoing	X	X	X	X	X	X	X
IV.A.3.b.	Evaluate stocking success as identified in monitoring plan for stocked fish.	Program		X	X	X	X	X	X	X
IV.A.4.	Develop State stocking plan for Colorado pikeminnow in the Colorado River in Colorado.	CDOW/PD	Complete							
IV.A.4.a.	Program acceptance.	CDOW/PD	Complete							
> IV.A.4.b.	Implement Colorado pikeminnow State stocking plan.	CDOW/PD	Ongoing	X	X	X	X	X	X	X
IV.A.4.c.	Evaluate stocking success as identified in monitoring plan for stocked fish.	Program		X	X	X	X	X	X	X
IV.A.5.	Develop State stocking plan for bonytail in the Colorado River from Palisade to Loma.	CDOW	Complete							
IV.A.5.a.	Program acceptance.	CDOW/PD	Complete							
> IV.A.5.b.	Implement bonytail State stocking plan.	FWS/CDOW	Ongoing	X	X	X	X	X	X	X
IV.A.5.c.	Evaluate stocking success as identified in monitoring plan for stocked fish.	Program		X	X	X	X	X	X	X
IV.A.6.	Develop State stocking plan for the four endangered fish in the Colorado River in Utah.									
IV.A.6.a.	Prepare plan.	UDWR	Complete							
IV.A.6.b.	Program acceptance.	UDWR	Complete							
> IV.A.6.c.	Implement plan.	UDWR	Ongoing	X	X	X	X	X	X	X
IV.A.6.d.	Evaluate stocking success as identified in monitoring plan for stocked fish.	UDWR		X	X	X	X	X	X	X
V.	<b>MONITOR POPULATIONS AND HABITAT AND CONDUCT RESEARCH TO SUPPORT RECOVERY ACTIONS (RESEARCH, MONITORING, AND DATA MANAGEMENT)</b>									
V.A.	Conduct research to acquire life history information and enhance scientific techniques required to complete recovery actions.									
V.A.1.	Determine Colorado pikeminnow larval drift into Lake Powell.	NPS	Complete							
V.B.	Monitor populations per requirements in the 15-Mile Reach PBO.									
V.B.1.	Determine initial baselines and indices for Colorado pikeminnow and humpback chub.	PD	Complete							

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V.B.1.a.	Evaluate population response, per 15-Mile Reach PBO (every 5 years beginning in FY 05).	FWS				X				X
V.B.2.	Determine initial baselines and indices for razorback sucker and bonytail.	PD				X				
V.B.2.a.	Evaluate population response, per 15-Mile Reach PBO (every 5 years beginning in FY 05).	FWS				X				X
V.B.3.	Revise population indices to conform to recovery goals.	FWS	Complete	X						
V.B.4.	Monitor incidental take.									
V.B.4.a.	Develop plan to monitor incidental take of endangered fishes in diversion structures.	FWS		X						
V.B.4.b.	Implement plan to monitor incidental take of endangered fish in diversion structures.	FWS		X	X	X	X	X	X	X
V.C.	Estimate humpback chub populations									
V.C.1.	Black Rocks	FWS		X	X			X	X	X
V.C.2.	Westwater	UDWR		X	X			X	X	X
V.C.3.	Cataract Canyon	UDWR/Valdez		X	X	X		X	X	X
V.D.	Estimate pikeminnow populations in the upper Colorado River (including Gunnison River).	FWS		X	X	X			X	X